

Python: module vcs.colormapgui

vcs.colormapgui

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```
# The VCS Colormap GUI controls - colormapgui module
#
#####
# Module:      colormapgui module
#
# Copyright:   "See file Legal.htm for copyright information."
#
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#
# Description: PCMDI's VCS GUI colormap browser and editor. Tkinter version.
#
# Version:    4.0
#
#####
#####
```

Modules

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class **ColormapGui**

```
    # Create the Tkinter/Pmw Colormap editor interface
```

Methods defined here:

```

__init__(self, vcs=None, gui_parent=None, transient=0)

evt_change_color(self, vcs, called_from, event)
#####
#
# Function:
# Change the color index to user specified entry.
#
#####

evt_select_similiar_color(self, eself, parent, vcs, event)
#####
#
# Function:
# Get color that is similiar to selected color. Popup yet and
#
#####

execute(self)
#####
#
# Show the requested colormap on the canvas.
#
#####

execute2(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font)
#####
#
# Function:
# Show the requested similiar colors
#
#####

execute_similiar_color(self, eself, vcs, result)
#####
#
# Function:
# Show the requested similiar colors
#
#####

get_VCS_colormap(self, vcs)
#####
#
# Get the VCS colormap values and convert to Hex value names
#
#####

get_color_indices(self, vcs)
#####
#
# Function:
#
#####

```

```

# Retrieve the appropriate color indices via the user's request
#
#####
# Function:
# Select the color index by outlining the box and showing its
#
#####
select_color_index_left(self, vcs, event)
#####
# Function:
# Select the color index with the left mouse button.
#
#####

select_color_index_left2(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font, num, event)
#####
# Function:
# Get color the toggle preference.
#
#####

toggle_callback(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font, tag)
#####
# Function:
# Change the number of columns visible in the popup color select
#
#####

update_col(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font, num, event)
#####
# Function:
# Change the number of rows visible in the popup color select
#
#####

update_color(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font, color_type)
#####
# Function:
# Change the number of rows visible in the popup color select
#
#####

update_row(self, eself, parent, vcs, width, height, borderwidth, color, color_index, font, num, event)
#####
# Function:
# Change the number of rows visible in the popup color select
#
#####

```

class *E_Command*

```

-----
# Event handling function that will allow the passing of arguments
-----
```

Methods defined here:

```
__call__(self, *args, **kw)  
__init__(self, func, *args, **kw)
```

```
class create_colormap_file_menu
```

```
#-----  
# Create the colormap File menu and its menu items  
#-----
```

Methods defined here:

```
__init__(self, main_menu, eself, parent, root, vcs)  
  
evt_open_file(self, parent, vcs)  
    # Open VCS file  
  
evt_save_as(self, eself, parent, vcs)  
    # Save VCS colormap as a new name  
  
evt_save_colormap(self, eself, parent, vcs)  
    # Save VCS colormap under the same name  
  
evt_save_to_file(self, eself, parent, vcs)  
    # Save VCS Color map to a file
```

```
class create_colormap_help_menu
```

```
#-----  
# Create the colormap Help menu and its menu items  
#-----
```

Methods defined here:

```
__init__(self, main_menu, eself, parent)  
  
evt_about_dialog(self, eself, parent)  
    # Create about colormap dialog.
```

```
class create_edit_menu
```

```
#-----  
# Create the Colormap Edit menu and its menu items  
#-----
```

Methods defined here:

```
__init__(self, eself, main_menu, parent, vcs)

evt_blend_colors(self, eself, parent, vcs)

evt_copy_selected_colors(self, eself, parent, vcs)

evt_paste_selected_indices(self, eself, parent, vcs)
```

```
class create_entry_popup
```

```
#-----
# Create the colormap entry popup window to save colormap to output
# a new colormap
#-----
```

Methods defined here:

```
__init__(self, eself, parent, vcs, type, title, text, entry_str="")

execute(self, eself, parent, vcs, result)
    # Save, copy, and write colormap to a file
```

```
class create_options_menu
```

```
#-----
# Create the Colormap Options menu and its menu items
#-----
```

Methods defined here:

```
__init__(self, eself, main_menu, parent, vcs)

evt_color_mode(self, eself, main_menu, parent, color_mode)
    # Update the color model look and feel

evt_delete_colormap(self, eself, parent, vcs)
    # Delete colormap

evt_select_colormap(self, eself, parent, vcs)
    # Set to a new colormap

evt_view_colormap_values(self, eself, parent, vcs)
    # View colormap values

execute_colormap_deletion(self, eself, vcs, result)
    # Remove the colormap

execute_colormap_selection(self, eself, vcs, result)
```

```
# Set the colormap selection
```

Functions

HSV_to_RGB(H, S, V)

```
#
# Function that converts HSV color space to RGB
#
# Note: psz is the maximum value of the RGB and S and V must be no
#-----
```

RGB_to_HSV(R, G, B)

```
#####
# The HSV Color Model -
#
# The RGB, CMY, and YIQ models are hardware-oriented. By contrast,
# saturation, value) model (also called HSB model, with B for brig
# oriented, being based on the intuitive appeal of the artist's ti
# The coordinate system is cylindrical, and the subset of the spac
# model is defined is a hexcone, or six-sided pyramid. (See the Co
# Principles and Practice (second Edition) for details on algorithm
#
#####
# Function that converts RGB to HSV color space.
#-----
```

create(canvas=None, gui_parent=None, transient=0, max_intensity=None)

```
# Create/Popup colormap gui editor for VCS.
```

Data

Pmw = <Pmw.Pmw_1_2.lib.PmwLoader.PmwLoader instance>

psz = 100.0